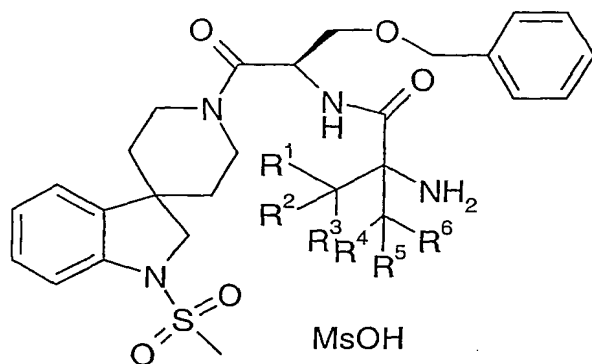


Claims

1. A radiolabeled growth hormone secretagogue comprising at least one compound of the formula :



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wherein  $R^1$  to  $R^6$  are independently of each other H or T, and wherein at least one of  $R^1$  to  $R^6$  are T.

2. The radiolabeled growth hormone secretagogue of claim 1, wherein the specific activity of the radiolabeled growth hormone secretagogue is between 86.4 Ci/mmol and 115.2 Ci/mmol.

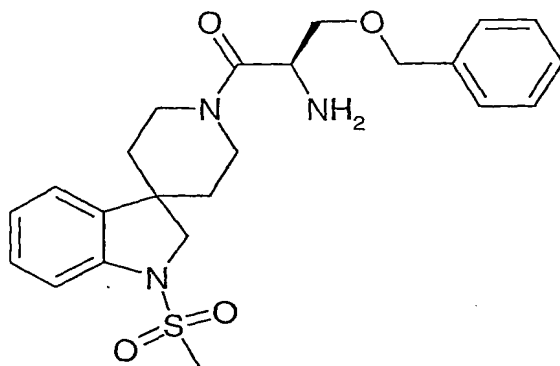
3. The radiolabeled growth hormone secretagogue of claim 2, wherein the specific activity of the radiolabeled growth hormone secretagogue is 97.5 Ci/mmol.

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4. Use of a radiolabeled growth hormone secretagogue of any one of claims 1 to 3 for identifying a compound that can bind to a growth hormone secretagogue receptor.
5. Use of a radiolabeled growth hormone secretagogue of any one of claims 1 to 3 for identifying a cellular receptor as a growth hormone secretagogue receptor.

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6. Use of a radiolabeled growth hormone secretagogue of any one of claims 1 to 3 for identifying the activity of a compound as a growth hormone secretagogue.
7. A process of synthesizing a radiolabeled growth hormone secretagogue which  
5 comprises reacting a compound having a formula:



with X- $\alpha$ -aminoisobutyric acid- [methyl-T], where X is defined as a protecting group which is subsequently removed if present and salts are formed if desired.

8. A method of identifying a cellular receptor as a growth hormone secretagogue receptor comprising contacting a host suspected to express a growth hormone secretagogue receptor with the radiolabeled growth hormone secretagogue of any one of claims 1 to 3 and determining whether binding has occurred.
9. A method for identifying a compound that can bind to a growth hormone secretagogue receptor comprising contacting said compound with a host expressing a growth hormone secretagogue receptor in the presence of the radiolabeled growth hormone secretagogue of any one of claims 1 to 3 and monitoring whether the compound influences the binding of the radiolabeled growth hormone secretagogue of  
20 any one of claims 1 to 3 to the growth hormone secretagogue receptor.

10. A method for identifying the activity of a compound as a growth hormone secretagogue comprising contacting the compound suspected of having activity as a growth hormone secretagogue with a host expressing a growth hormone secretagogue receptor in the presence of the radiolabeled growth hormone secretagogue of any one of  
5 claims 1 to 3 and monitoring whether the compound suspected of having activity as a growth hormone secretagogue influences the binding of the radiolabeled growth hormone secretagogue of any one of claims 1 to 3 to the growth hormone secretagogue receptor.

10 11. A compound identified by the methods of any one of claims 9 or 10, or pharmaceutically acceptable salts thereof.

12. A pharmaceutical composition comprising a compound of claim 11 and a pharmaceutically acceptable carrier.

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13. The radiolabeled ligand, compounds, methods, process, uses and composition substantially as hereinbefore described, especially with reference to the foregoing examples.

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